

AMENDMENT(S) TO THE CLAIMS

1-153. (Cancelled)

154. (New) A belt press for a paper machine, the belt press comprising: a roll having an exterior surface;

a permeable belt having a first side and being guided over a portion of said exterior surface of said roll, said permeable belt having a tension of at least approximately 30 KN/m, said  
5 first side having an open area of at least approximately 25% and a contact area of at least approximately 10%.

155. (New) The belt press of claim 154, wherein said contact area is at least 25%.

156. (New) The belt press of claim 154, wherein said first side faces said exterior surface, said permeable belt exerting a pressing force on said roll.

157. (New) The belt press of claim 154, wherein said permeable belt includes through openings.

158. (New) The belt press of claim 154, wherein said permeable belt includes through openings arranged in a generally regular symmetrical pattern.

159. (New) The belt press of claim 154, wherein said permeable belt includes generally parallel rows of through openings, whereby the rows are oriented along a machine direction.

160. (New) The belt press of claim 154, wherein said permeable belt exerts a pressing force on said roll in a range of between approximately 30 KPa to approximately 150 KPa.

161. (New) The belt press of claim 154, wherein said permeable belt includes through openings and a plurality of grooves, each groove intersecting a different set of through openings.

162. (New) The belt press of claim 161, wherein said first side faces said exterior surface and wherein said permeable belt exerts a pressing force on said roll.

163. (New) The belt press of claim 162, wherein said plurality of grooves are arranged on said first side.

164. (New) The belt press of claim 161, wherein each of said plurality of grooves comprises a width, and wherein each of the through openings comprises a diameter, and wherein said diameter is greater than said width.

165. (New) The belt press of claim 154, wherein said tension of said belt is greater than approximately 50 KN/m.

166. (New) The belt press of claim 165, wherein said tension of said belt is greater than approximately 60 KN/m.

167. (New) The belt press of claim 165, wherein said tension of said belt is greater than approximately 80KN/m.

168. (New) The belt press of claim 154, wherein said roll is a vacuum roll.

169. (New) The belt press of claim 154, wherein said roll is a vacuum roll having an interior circumferential portion.

170. (New) The belt press of claim 169, wherein said vacuum roll includes at least one vacuum zone arranged within said interior circumferential portion.

171. (New) The belt press of claim 154, wherein said roll is a vacuum roll having a suction zone.

172. (New) The belt press of claim 171, wherein said suction zone includes a circumferential length of between approximately 200 mm and approximately 2,500 mm.

173. (New) The belt press of claim 172, wherein said circumferential length is in the range of between approximately 800 mm and approximately 1,800 mm.

174. (New) The belt press of claim 173, wherein said circumferential length is in the range of between approximately 1,200 mm and approximately 1,600 mm.

175. (New) The belt press of claim 154, wherein said permeable belt includes at least one of a polyurethane extended nip belt and a spiral link fabric.

176. (New) The belt press of claim 154, wherein said permeable belt includes a polyurethane extended nip belt which has a plurality of reinforcing yarns embedded therein and wherein said reinforcing yarns are at least one of mono yarns, twisted yarns, multifilament yarns, and a combination of mono yarns, twisted yarns and multifilament yarns.

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177. (New) The belt press of claim 176, wherein said plurality of reinforcing yarns include a plurality of machine direction yarns and a plurality of cross direction yarns.

178. (New) The belt press of claim 154, wherein said permeable belt is a polyurethane extended nip belt having a plurality of reinforcing yarns embedded therein, said plurality of reinforcing yarns being woven in a spiral link manner.

179. (New) The belt press of claim 154, wherein said permeable belt includes at least one spiral link fabric which has at least one of a synthetic material, a stainless steel material, and a combination of a synthetic material and a stainless steel material.

180. (New) The belt press of claim 179, wherein said at least one spiral link fabric includes a synthetic material.

181. (New) The belt press of claim 179, wherein said at least one spiral link fabric includes stainless steel.

182. (New) The belt press of claim 154, wherein said permeable belt is a permeable fabric, which is reinforced by at least one spiral link belt.

183. (New) The belt press of claim 154, further comprising: a first fabric; and  
a second fabric traveling between said permeable belt and said roll, said first fabric having  
a first side and a second side, said first side of said first fabric being in at least partial contact with  
said exterior surface of said roll, said second side of said first fabric being in at least partial  
5 contact with a first side of a fibrous web, said second fabric having a first side and a second side,  
said first side of said second fabric being in at least partial contact with said first side of said  
permeable belt, said second side of said second fabric being in at least partial contact with a  
second side of said fibrous web.

184. (New) The belt press of claim 183, wherein said first fabric includes one of a  
permeable dewatering belt, a felt, a woven fabric, and a wire.

185. (New) The belt press of claim 183, wherein said second fabric includes one of a  
structured fabric and a TAD fabric.

186. (New) The belt press of claim 183, wherein said fibrous web is one of a tissue web  
and a hygiene web.

187. (New) A fibrous material drying arrangement comprising:  
a roll; and  
an endlessly circulating permeable extended nip press (ENP) belt guided over said roll,  
said ENP belt being subjected to a tension of at least approximately 30 KN/m, said ENP belt

- 5 having a side with an open area of at least approximately 25% and a contact area of at least approximately 10%.

188. (New) The arrangement of claim 187, wherein said contact area is at least 25%.

189. (New) A permeable extended nip press (ENP) belt which is capable of being subjected to a tension of at least approximately 30 KN/m, the permeable ENP belt comprising: at least one side having an open area of at least approximately 25% and a contact area of at least approximately 10%.

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190. (New) The permeable ENP belt of claim 189, wherein said contact area is at least 25%.

191. (New) The ENP belt of claim 189, wherein the open area is defined by through openings and the contact area is defined by a planar surface.

192. (New) The ENP belt of claim 189, wherein the open area is defined by through openings and the contact area is defined by a planar surface without openings, recesses, or grooves.

193. (New) The ENP belt of claim 189, wherein the open area is defined by through openings and grooves, and the contact area is defined by a planar surface without openings, recesses, or grooves.

194. (New) The ENP belt of claim 189, wherein said permeable ENP belt includes a spiral link fabric.

195. (New) The ENP belt of claim 194, wherein said open area is between approximately 30% and approximately 85%, and said contact area is between approximately 15% and approximately 70%.

196. (New) The ENP belt of claim 194, wherein said open area is between approximately 45% and approximately 85%, and said contact area is between approximately 15% and approximately 55%.

197. (New) The ENP belt of claim 194, wherein said open area is between approximately 50% and approximately 65%, and said contact area is between approximately 35% and approximately 50%.

198. (New) The ENP belt of claim 189, wherein said permeable ENP belt has through openings arranged in a generally symmetrical pattern.

199. (New) The ENP belt of claim 189, wherein said permeable ENP belt includes through openings arranged in generally parallel rows relative to a machine direction.

200. (New) The ENP belt of claim 189, wherein said permeable ENP belt is an endless circulating belt.

201. (New) The ENP belt of claim 189, wherein said permeable ENP belt includes through openings and wherein said at least one side of said permeable ENP belt has a plurality of grooves, each of said plurality of grooves intersecting a different set of through holes.

202. (New) The ENP belt of claim 201, wherein each of said plurality of grooves having a width, each of said through openings having a diameter, said diameter being greater than said width.

203. (New) The ENP belt of claim 201, wherein each of said plurality of grooves extend into the permeable ENP belt by an amount that is less than a thickness of the permeable belt.

204. (New) The ENP belt of claim 189, wherein said tension greater than approximately 50KN/m, greater than approximately 60 KN/m, and greater than approximately 80 KN/m.

205. (New) The ENP belt of claim 204, wherein said tension is greater than 60 KN/m.

206. (New) The ENP belt of claim 205, wherein said tension is greater than 80 KN/m.

207. (New) The ENP belt of claim 189, wherein said permeable ENP belt includes a flexible reinforced polyurethane member.

208. (New) The ENP belt of claim 189, wherein said permeable ENP belt includes a flexible spiral link fabric.



209. (New) The ENP belt of claim 189, wherein said permeable ENP belt includes a flexible polyurethane member having a plurality of reinforcing yarns embedded therein.

210. (New) The ENP belt of claim 209, wherein said plurality of reinforcing yarns include a plurality of machine direction yarns and a plurality of cross direction yarns.

211. (New) The ENP belt of claim 189, wherein said permeable ENP belt includes a flexible polyurethane material and a plurality of reinforcing yarns embedded therein, said plurality of reinforcing yarns being woven in a spiral link manner.

212. (New) The ENP belt of claim 189, wherein said permeable ENP belt includes at least one spiral link fabric.

213. (New) The ENP belt of claim 212, wherein said at least one spiral link fabric is made of a synthetic material.

214. (New) The ENP belt of claim 212, wherein said at least one spiral link fabric is made of stainless steel.

215. (New) The ENP belt of claim 189, wherein said permeable ENP belt includes a permeable fabric that is reinforced by at least one spiral link belt.

216. (New) A method of subjecting a fibrous web to pressing in a paper machine, the method comprising the steps of :

applying pressure against a contact area of the fibrous web with a portion of a permeable belt, wherein the contact area is at least approximately 10 % of an area of said portion; and  
5 moving a fluid through an open area of said permeable belt and through the fibrous web, wherein said open area is at least approximately 25% of said portion, wherein, during the applying and the moving steps said permeable belt has a tension of at least approximately 30 KN/m.

217. (New) The method of claim 216, wherein said contact area is at least approximately 25%.

218. (New) The method of claim 216, wherein said contact area of the fibrous web includes areas which are pressed more by said portion than non-contact areas of the fibrous web.

219. (New) The method of claim 216, wherein said portion of the permeable belt includes a generally planar surface which has no openings, recesses, or grooves and which is guided over a roll.

220. (New) The method of claim 216, wherein said fluid is air.

221. (New) The method of claim 216, wherein said open area of said permeable belt includes through openings and grooves.

222. (New) The method of claim 216, wherein said tension is greater than approximately 50 KN/m.

223. (New) The method of claim 222, wherein said tension is greater than approximately 60 KN/m.

224. (New) The method of claim 223, wherein said tension is greater than approximately 80 KN/m.

225. (New) The method of claim 216, further comprising the step of rotating a roll in a machine direction, said permeable belt moving in concert with and being guided one of over and by said roll.

226. (New) The method of claim 216, wherein said permeable belt includes a plurality of grooves and through openings, each of said plurality of grooves being arranged on a side of said permeable belt and intersecting with a different set of through openings.

227. (New) The method of claim 216, wherein said applying and said moving steps occur for a dwell time which is sufficient to produce a fibrous web solids level in the range of between approximately 25% to 55 %.

228. (New) The method of claim 227, wherein said dwell time is one of equal to and greater than approximately 40 ms

229. (New) The method of claim 228, wherein said dwell time is one of equal to and greater than approximately 50 ms.

230. (New) The method of claim 216, wherein said permeable belt is a spiral link fabric.

231. (New) A method of pressing a fibrous web in a paper machine, the method comprising the steps of:

applying a first pressure against first portions of the fibrous web with a permeable belt and a second greater pressure against second portions of the fibrous web with a pressing portion of said permeable belt, wherein an area of said second portions is at least approximately 10% of an area of said first portions; and

moving air through open portions of said permeable belt, said open portions being at least approximately 25% of the pressing portion of said permeable belt which applies said first and second pressures, during said applying and said moving steps said permeable belt has a tension of at least approximately 30 KN/m.

232. (New) The method of claim 231, wherein said area of said second portions is at least approximately 25% of said area of said first portions.

233. (New) The method of claim 231, wherein said tension is greater than approximately 50 KN/m.

234. (New) The method of claim 233, wherein said tension is greater than approximately 60 KN/m, and

235. (New) The method of claim 234, wherein said tension is greater than approximately 80 KN/m.

236. (New) The method of claim 231, further comprising the step of rotating a roll in a machine direction, said permeable belt moving in concert with said roll.

237. (New) The method of claim 231, wherein said area of the open portions is at least approximately 50% of the pressing portion.

238. (New) The method of claim 231, wherein said area of the open portions is at least approximately 70% of the pressing portion.

239. (New) The method of claim 231, wherein an average of a sum of said first pressure and said second greater pressure is in the range of between approximately 30 KPa to approximately 150 KPa.

240. (New) The method of claim 231, wherein said moving and said applying steps occur substantially simultaneously.

241. (New) The method of claim 231, further comprising the step of moving the air through the fibrous web for a dwell time which is sufficient to produce a fibrous web solids in the range of between approximately 25% and approximately 55%.

242. (New) The method of claim 241, wherein said dwell time is one of equal to and greater than approximately 40 ms.

243. (New) The method of claim 242, wherein said dwell time is one of equal to and greater than approximately 50 ms.

244. (New) The method of claim 231, further comprising the step of applying a pressing force with a roll against said pressing portion of said permeable belt.

245. (New) A method of drying a fibrous web in a belt press which includes a roll and a permeable belt having through openings, wherein an area of the through openings of a pressing portion of the permeable belt is at least approximately 25% of an area of the pressing portion, and wherein the permeable belt is tensioned to at least approximately 30 KN/m, the method  
5 comprising the steps of:

guiding at least the pressing portion of the permeable belt over the roll;

moving the fibrous web between the roll and the pressing portion of the permeable belt;

subjecting at least approximately 10% of the fibrous web to a pressure produced by portions of the permeable belt which are adjacent to the through openings; and

10 moving a fluid through the through openings of the permeable belt and the fibrous web.

246. (New) The method of claim 245, wherein the permeable belt has grooves and wherein said subjecting step includes subjecting at least approximately 25% of the fibrous web to a pressure produced by portions of the permeable belt which are adjacent to the through openings and the grooves.

5 247. (New) The method of claim 245, wherein the permeable belt includes a spiral link fabric.

248. (New) The method of claim 245, wherein the portions of the permeable belt which are adjacent to the through openings includes a contact area, and wherein the contact area is at least approximately 25% of the area of the pressing portion.

249. (New) A pressing arrangement comprising:

at least one first fabric;

at least one second fabric, said at least one first fabric and said at least one second fabric being permeable;

5 a paper web disposed between said first fabric and said second fabric;

a pressure producing element being in contact with said at least one first fabric;

a support surface of a supporting structure being in contact with said at least one second fabric; and

a differential pressure being provided between said first fabric and said support surface  
10 and acting on said at least one first fabric, said paper web, and said at least one second fabric, whereby said paper web is subjected to mechanical pressure and experiences a predetermined hydraulic pressure so as to cause water to be drained from said paper web, said pressing arrangement being structured and arranged to allow air to flow in a direction from said at least one first fabric through said paper web and through said at least one second fabric.

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250. (New) The arrangement of claim 249, wherein said at least one first fabric is a structured fabric and has at least one of a greater roughness and a lower compressibility than said at least one second fabric, said pressing arrangement being structured and arranged to allow air to flow in a direction from said at least one first fabric, through said paper web, through said at least

5 one second fabric, and at least one of through said support surface and into recesses in said support surface.

251. (New) The arrangement of claim 249, wherein said at least one first fabric is a TAD fabric.

252. (New) The arrangement of claim 249, wherein said at least one first fabric is a membrane.

253. (New) The arrangement of claim 249, wherein said at least one first fabric is one of a printed membrane and a printed fabric.

254. (New) The arrangement of claim 249, wherein said at least one second fabric includes a permeable base fabric and a lattice grid attached thereto, said lattice grid being made of polymer.

255. (New) The arrangement of claim 254, wherein said polymer is polyurethane.

256. (New) The arrangement of claim 254, wherein said supporting structure is a suction roll, a lattice grid side of said at least one second fabric being in contact with said support surface of said suction roll while an opposite side of said at least one second fabric contacts said paper web.

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257. (New) The arrangement of claim 254, wherein said permeable base fabric includes a plurality of machine direction yarns and cross-direction yarns, said lattice grid being oriented at an angle relative to said machine direction yarns and said cross-direction yarns.

258. (New) The arrangement of claim 254, wherein said lattice grid includes an anti-rewet layer and a soft material layer which contacts said paper web.

259. (New) The arrangement of claim 254, wherein said lattice grid includes an elastomeric material and machine direction yarns.

260. (New) The arrangement of claim 249, wherein said at least one first fabric transports said paper web to and from the press arrangement.

261. (New) The arrangement of claim 249, wherein said at least one first fabric includes a three-dimensional structure, whereby the press arrangement processes a high bulky web.

262. (New) The arrangement of claim 249, wherein said at least one second fabric is capable of storing or absorbing water.

263. (New) The arrangement of claim 249, wherein said at least one second fabric has at least one smooth surface.

264. (New) The arrangement of claim 249, wherein said at least one second fabric includes a felt with a batt layer.

265. (New) The arrangement of claim 264, wherein said batt layer includes a plurality of batt fibers having a diameter one of equal to and less than 11 dtex.

266. (New) The arrangement of claim 265, wherein said diameter is one of equal to and less than 4.2 dtex.

267. (New) The arrangement of claim 266, wherein said diameter is one of equal to and less than 3.3 dtex.

268. (New) The arrangement of claim 249, wherein said at least one second fabric includes one of a blend of batt fibers and a vector layer having fibers which are one of equal to and greater than approximately 67 dtex.

269. (New) The arrangement of claim 249, wherein a surface of said at least one second fabric has one of equal to and greater than  $35 \text{ m}^2/\text{m}^2$  felt area.

270. (New) The arrangement of claim 249, wherein a surface of said at least one second fabric has one of equal to and greater than  $65 \text{ m}^2/\text{m}^2$  felt area.

271. (New) The arrangement of claim 249, wherein a surface of said at least one second fabric has one of equal to and greater than  $100 \text{ m}^2/\text{m}^2$  felt area.

272. (New) The arrangement of claim 249, wherein a specific surface of said at least one second fabric has a felt weight of one of equal to and greater than  $0.04 \text{ m}^2/\text{g}$ .

273. (New) The arrangement of claim 272, wherein said felt weight is of one of equal to and greater than  $0.065 \text{ m}^2/\text{g}$ .

274. (New) The arrangement of claim 272, wherein said felt weight is of one of equal to and greater than  $0.075 \text{ m}^2/\text{g}$ .

275. (New) The arrangement of claim 249, wherein said at least one second fabric has a density of one of equal to and higher than  $0.4 \text{ g/cm}^3$ .

276. (New) The arrangement of claim 275, wherein said density is one of equal to and higher than  $0.5 \text{ g/cm}^3$ .

277. (New) The arrangement of claim 276, wherein said density is one of equal to and higher than  $0.53 \text{ g/cm}^3$ .

278. (New) The arrangement of claim 249, wherein the press arrangement operates at a web speed of greater than  $1000 \text{ m/min}$ .

279. (New) The arrangement of claim 249, wherein said at least one second fabric has a permeability of lower than approximately  $80 \text{ cfm}$

280. (New) The arrangement of claim 279, wherein said permeability is lower than approximately 40 cfm.

281. (New) The arrangement of claim 280, wherein said permeability is one of equal to and lower than approximately 25 cfm.

282. (New) The arrangement of claim 249, wherein said at least one second fabric has a first permeability, said at least one first fabric has a second permeability, said first permeability being lower than said second permeability.

283. (New) The arrangement of claim 249, wherein a compressibility of said at least one second fabric is greater than a compressibility of said at least one first fabric.

284. (New) The arrangement of claim 249, wherein said support surface is one of generally flat and generally planar.

285. (New) The arrangement of claim 249, wherein said support surface is a curved surface of one of a suction roll and a cylinder.

286. (New) The arrangement of claim 285, wherein said curved surface has a diameter of approximately 1 m or more

287. (New) The arrangement of claim 286, wherein said diameter is approximately 1.2 m or more.

288. (New) The arrangement of claim 285, wherein said one of a suction roll and a cylinder includes at least one suction zone.

289. (New) The arrangement of claim 249, wherein said mechanical pressure is produced by at least one of tensioning of said pressure producing element and compressing exerted by said pressure producing element.

290. (New) The arrangement of claim 249, wherein said pressure producing element includes an impermeable belt.

291. (New) The arrangement of claim 249, wherein said pressure producing element includes a permeable belt.

292. (New) The arrangement of claim 249, wherein said pressure producing element includes one of a press shoe and a perforated press shoe.

293. (New) The arrangement of claim 249, wherein said pressure producing element is a press roll.

294. (New) The arrangement of claim 249, wherein said pressure producing element includes a permeable belt having an open area of at least approximately 25%.

295. (New) The arrangement of claim 294, wherein said open area is greater than approximately 35%.

296. (New) The arrangement of claim 295, wherein said open area is greater than approximately 50%.

297. (New) The arrangement of claim 249, wherein said pressure producing element is a permeable belt having a contact area of at least approximately 10%.

298. (New) The arrangement of claim 297, wherein said contact area is at least approximately 25%.

299. (New) The arrangement of claim 298, wherein said contact area is up to approximately 50%.

300. (New) The arrangement of claim 249, wherein said pressure producing element is a permeable belt having a tension of more than approximately 30 KN/m.

301. (New) The arrangement of claim 300, wherein said tension is more than approximately 50 KN/m.

302. (New) The arrangement of claim 249, wherein said differential pressure is greater than approximately 0.3 bar.

303. (New) The arrangement of claim 302, wherein said differential pressure is one of equal to and greater than approximately 1 bar.

304. (New) The arrangement of claim 303, wherein said differential pressure is one of equal to and greater than approximately 1.5 bar.

305. (New) The arrangement of claim 249, wherein said pressure producing element includes a permeable belt including at least one of a reinforced plastic, a synthetic material belt and a spiral linked fabric.

306. (New) The arrangement of claim 249, further comprising a device for producing an overpressure above said pressure producing element.

307. (New) The arrangement of claim 249, further comprising a device for producing at least one of hot air and steam above said pressure producing element.

308. (New) The arrangement of claim 249, wherein at least one of said at least one second fabric and said at least one first fabric is heated.

309. (New) The arrangement of claim 249, wherein said paper web leaves said press arrangement with a moisture content of approximately 35% or less.

310. (New) The arrangement of claim 249, wherein said paper web leaves said press arrangement with a dryness level of between approximately 30 to approximately 40%.

311. (New) The arrangement of claim 249, wherein a dynamic-stiffness  $K^*$  [N/mm] of said at least one second fabric is one of greater than and equal to 3,000 N/mm and less than a dynamic stiffness  $K^*$  [N/mm] of said at least one first fabric.

312. A method of drying a paper web, comprising the steps of:

providing a pressing arrangement including:

at least one first fabric;

at least one second fabric, said at least one first fabric and said at least one second fabric

5 being permeable;

a paper web disposed between said first fabric and said second fabric;

a pressure producing element being in contact with said at least one first fabric;

a support surface of a supporting structure being in contact with said at least one second

10 fabric; and

a differential pressure being provided between said first fabric and said support surface and acting on said at least one first fabric, said paper web, and said at least one second fabric,

whereby said paper web is subjected to mechanical pressure and experiences a predetermined

hydraulic pressure so as to cause water to be drained from said paper web, said pressing

arrangement being structured and arranged to allow air to flow in a direction from said at least one

15 first fabric through said paper web and through said at least one second fabric;

moving said paper web disposed between said at least one first fabric and said at least one

second fabric, between said support surface and said pressure producing element ; and

moving a fluid through said paper web, said at least one first fabric, said at least one second fabric and said support surface.



313. (New) A belt press for a paper machine, the belt press comprising:  
a vacuum roll having an exterior surface and at least one suction zone;  
a permeable belt having a first side and being guided over a portion of said exterior  
surface of said vacuum roll, said permeable belt having a tension of at least approximately 30  
5 KN/m, said first side having an open area of at least approximately 25% and a contact area of at  
least approximately 10%

314 (New) The belt press of claim 313, wherein said contact area is at least 25%.

315. (New) The belt press of claim 313, wherein said at least one suction zone has a  
circumferential length of between approximately 200 mm and approximately 2,500 mm.

316. (New) The belt press of claim 315, wherein said circumferential length defines an  
arc of between approximately 80 degrees and approximately 180 degrees.

317. (New) The belt press of claim 316, wherein said arc is between approximately 80  
degrees and approximately 130 degrees.

318. (New) The belt press of claim 313, wherein said at least one suction zone is adapted  
to apply a vacuum for a dwell time which is one of equal to and greater than approximately 40  
ms.

319. (New) The belt press of claim 318, wherein said dwell time is one of equal to and greater than approximately 50 ms.

320. (New) The belt press of claim 313, wherein said permeable belt exerts a pressing force on said vacuum roll for a first dwell time which is one of equal to and greater than approximately 40 ms.

321. (New) The belt press of claim 320, wherein said at least one suction zone is adapted to apply vacuum for a second dwell time which is one of equal to and greater than approximately 40 ms.

322. (New) The belt press of claim 321, wherein said second dwell time is one of equal to and greater than approximately 50 ms.

323. (New) The belt press of claim 322, wherein said first dwell time is one of equal to and greater than approximately 50 ms.

324. (New) The belt press of claim 313, wherein said permeable belt includes at least one spiral link fabric.

325. (New) The belt press of claim 324, wherein said at least one spiral link fabric includes a synthetic material.

326. (New) The belt press of claim 324, wherein said at least one spiral link fabric includes stainless steel.

327. (New) The belt press of claim 324, wherein said at least one spiral link fabric has a tension applied thereto which is between approximately 30 KN/m and approximately 80 KN/m.

328. (New) The belt press of claim 327, wherein said tension is between approximately 35 KN/m and approximately 70 KN/m.

329. (New) A method of pressing and drying a paper web, the method comprising the steps of:

pressing, with a pressure producing element, the paper web between at least one first fabric and at least one second fabric; and

5 simultaneously moving a fluid through the paper web, through said at least one first fabric and through said at least one second fabric.

330. (New) The method of claim 329, wherein said pressing step occurs for a dwell time which is one of equal to and greater than approximately 40 ms.

331. (New) The method of claim 330, wherein said dwell time is one of equal to and greater than approximately 50 ms.

332. (New) The method of claim 329, wherein said simultaneously moving step occurs for a dwell time which is one of equal to and greater than approximately 40 ms.

333. (New) The method of claim 332, wherein said dwell time is one of equal to and greater than approximately 50 ms.

334. (New) The method of claim 329, wherein said pressure producing element includes a device which applies a vacuum.

335. (New) The method of claim 334, wherein said vacuum is greater than approximately 0.5 bar.

336. (New) The method of claim 335, wherein said vacuum is greater than approximately 1 bar.

337. (New) The method of claim 336, wherein said vacuum is greater than approximately 1.5 bar.